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ABSTRACT

The study compared 55 families with 2 moderatly to severely handicapped children, with 55 families with a single handicapped child. Comparisons were made for family characteristics and relative effectiveness of two intrventions (increased service intensity and parent involvement). Families with two handicapped children had significantly lower income and higher paternal unemployment, were more likely to be on public assistance, but were more likely to see themselves as close to their ideal. While greater intensity of services produced little differential impact on families of one versus two handicapped children, parent intervention programs appeared to have particular value for families with two handicapped children. Implications for professionals working with such families are drawn. Contains 16 references and 5 tables. (DB)

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A Study of Families With Two Handicapped Children

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Running Head: STUDY OF FAMILIES

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Abstract

The purpose of this study was to compare families in which one child was handicapped to families with two handicapped children. Comparisons were made for family characteristics and relative effectiveness of two interventions (service intensity and parent involvement). Fifty-five families with two handicapped children were matched with fifty-five families with a single handicapped child on key variables. Two-handicapped-child families had significantly lower income and higher paternal unemployment, and were more likely to be on public assistance. Two-child families saw themselves as closer to their perceived ideals. While greater intensity of services produces little differential impact on families of one vs. two handicapped children, parent intervention programs appear to have particular value for families with two handicapped children.

A Study of Families With More Than One Handicapped Child

Introduction

Offspring within a family unit often share distinctive characteristics. A number of families with a handicapped child experience the birth of a second handicapped child. The genetic and/or environmental factors that produce a handicap in one child may work together to increase the likelihood of other children within the same family being termed handicapped. For example, approximately 10% of the Early Intervention Research Institute's sample of 915 families contain more than one handicapped child. Even if these percentages are not as high in the general population, practitioners can expect to have such families and children in their caseloads. The structural differences in families with more than one handicapped child may require unique strategies and patterns of adaptation which necessitate equally imaginative approaches to intervention on the part of the practitioner.

Virtually nothing appears in the research concerning families with more than one handicapped child. A search of Psychological Abstracts, Child Development Abstracts, Exceptional Child Education

Resources, Exceptional Child Education Abstract, and Social Science Citation Index resulted in the finding that no study dealt specifically with this topic. This is unfortunate when one considers that federal legislation such as P.L. 94-142 and P.L. 99-457 requires individualization of special education and related services. Practitioners who work with these families would benefit from a knowledge of these families' distinctive characteristics, and of which methods might prove most effective in providing services to these families.

Thus, the purpose of this study was two-fold. The first aim of the study was to compare the pre-intervention characteristics of families with two handicapped children to a sample of families with one handicapped child. These groups of families were matched on one child's age and developmental level, mother's education, and family size. Families were then compared on demographic characteristics, perception of resources and support, family stress, and family functioning. This was done in order to provide comparative descriptive information concerning two-handicapped-child families. The second aim of this study was to compare the effectiveness of two kinds of intervention (provision of greater intensity of

services and participation in parent involvement groups) for one- versus two-handicapped-child families. This was done in order to examine whether various interventions might differentially impact families with two handicapped children.

Related Research

A sizable body of research exists concerning the effect of a child with a handicap on the family unit. In her study of stressors of parents with young handicapped children, Salisbury (1987) proposed that stresses related to the presence of a handicapped child in the family are collectively no different than those experienced by parents with equivalent-aged, nonhandicapped children. The effects seem most closely related to the perceptions, coping strategies, and adaptive capabilities of the individuals in the family unit (Crnic, Friedrich, & Greenberg, 1983; Salisbury, 1987). This line of thought would predict that by the arrival of a second handicapped child, families most likely have in place appropriate resources, services, and support structures and be experienced in their use. The presence of a second handicapped child should have minimal impact on the family.

Contrary to this point of view, some research suggests that members of families with a single

handicapped child are more prone to psychological and stress-related difficulties when compared with members of families of nonhandicapped children (Crnic et al., 1983; Friedrich & Friedrich, 1981; Levy-Shiff, 1986). The addition of another handicapped child would place pressures on an already stressed family structure and the individuals within that structure. Additionally, Systems Theory asserts that changes related to the incorporation of new members into the family structure resound throughout the family, inducing changes in the perceptions, methods, and tactics of the individuals involved (Dunst, 1985a; Kreppner, Paulsen, & Schuetze, 1982). If the goal of intervention is to augment the family's existing formal and informal support networks (Dunst, 1985a), it is important in any study involving intervention to consider interactions between family members and their environmental setting (Crnic et al., 1983; Dunst, 1985a). Thus, theory and research assert that the addition of another handicapped child in the family would impact both family functioning and type of intervention needed.

These points of view are in conflict. One would predict that a second handicapped child would be of minimal consequence while the other would predict significant differences. However, neither directly

considers families with more than one handicapped child, nor does evidence exist to suggest whether findings of studies with one handicapped child in a family will generalize to include families of more than one handicapped child.

Objectives

This study addresses a number of pertinent questions concerning families with more than one handicapped child. First, do families with two handicapped children perceive their resources and the support they receive in the same manner as those with only one handicapped child? In his overview of early intervention programs, Dunst (1986) identifies social support as a major contributor to the conduct and character of families and their developing children.

A second question is whether an additional handicapped child places excess stresses on the family structure or if the support systems that are already in place are sufficient to compensate. Friedrich and Friedrich (1981) suggest that parents of handicapped children find it especially difficult to ease the effects of stress because of inferior psychological and social support systems.

Third, is family functioning impacted to a greater extent when two handicapped children are in the family?

According to Levy-Shiff (1986), a retarded child impacts all facets of interaction within the family structure. Fourth, are there basic demographic differences that can be identified between families with two handicapped children and those with only one? No research exists defining the distinctive characteristics of families with more than one handicapped child. Such information would be valuable to both service providers and researchers alike.

Finally, of considerable importance to professionals working in the field is the question: Are families with two handicapped children impacted differently by intervention than are families with a single handicapped child? Specifically addressed is whether intervention practices for these families should concentrate on the parent (parent intervention groups) or the child (greater intensity of services), a question which Zigler and Berman (1983) have cited as a prominent focus in the field today. This concern may have particular relevance for families with two handicapped children. Parenting groups may be especially effective for families with two handicapped children, who may be able to generalize to a greater extent the information they receive and make more effective use of this information. It is also possible

that increasing services to the child may provide greater benefit to two-handicapped-child families, who may of necessity be more handicapped-child-centered than even families with one handicapped child are. The ultimate goal of this study is to found a preliminary research base useful in intervention and service provision to families with more than one handicapped child.

Methods

Subjects

Fifty-five two-handicapped-child families and 55 one-handicapped-child families served as subjects for the study. Children were moderately to severely handicapped and represented a wide variety of handicapping conditions. These subjects were drawn from a larger sample gathered as part of the Early Intervention Research Institute's (EIRI) study of the effectiveness of early intervention with handicapped children. Nine hundred fifteen families at sixteen sites across the nation form the pool from which this sample was taken. Ninety-one families were identified as having two children who required special education services; the child serving as a subject in the EIRI studies was designated the target child. Families in which the handicapped children were twins or other

multiple births were dropped from consideration, as were families in which the children were not biologically related to the primary caregiver (such as situations where the children were adopted or in reconstituted families where a stepparent presided). Families who discontinued participation in the study between time of pretest and time of posttest were also eliminated so that a consistent data set could be formed from which to draw conclusions. The final comparison group consisted of fifty-five families with two handicapped children.

These "two-child" families were matched with a group of families with a single handicapped child. Families were matched according to the target child's age, the target child's developmental level as assessed by the Battelle Developmental Inventory, mother's age and education, and family size (number of children). They were also matched by the target child's status in the EIRI longitudinal studies (experimental or control). Wherever possible, subjects were matched with a family at the same site in order to minimize geographical considerations; this matching occurred in 82% of the sample.

A comparison of single- and two- handicapped child families on the variables upon which they were matched

is found in Table 1. None of these means were significantly different at the $p < .10$ level.

Insert Table 1 about here

Intervention

Random assignment was used in determining whether subjects were placed in experimental or control groups as part of the longitudinal studies. Subjects were engaged in two types of studies being conducted by the Early Intervention Research Institute: intensity of services, and program variation. Forty-one of the 110 children in the current study were involved in intensity studies and 69 were involved in program variation studies. Forty-six of the subjects in the program variation studies were in studies evaluating the effectiveness of parent intervention, and this group was used for pretest-posttest comparisons. The remaining 23 children were involved in disparate studies which could not conveniently be grouped for analysis purposes.

Intensity of services. Sixteen two-child families were in the experimental groups while seven families were in the control groups. Nine of the single child families were in the experimental groups and nine were

in the control groups. (While these cell sizes are relatively small, they are adequate for statistical analysis.) Subjects ranged in age from 3 to 57 months, with a mean age of 18.4 months (SD = 13.1). All studies compared a more intense level of treatment with a less intense level of treatment--for example, one home visit per week vs. three home visits per week. Twenty-four of the subjects were in home-based programs while 17 were in center-based programs. Subjects in center-based programs in the experimental groups averaged 100 possible sessions between pretest and posttest while the controls averaged 10 possible sessions. (Length of time between pretest and posttest was approximately 42 weeks.) The experimental and control groups did not differ in terms of percentage of actual attendance ($t[10] = .94$, $p = .37$). (Percentage of actual attendance equals the number of sessions attended divided by the number of possible sessions.) Subjects in home-based programs in the experimental groups averaged 27 possible home sessions between pretest and posttest while the controls averaged 14 possible sessions. Experimental and control groups in home-based programs also did not differ in terms of percentage of actual attendance ($t[17] = -.61$, $p =$

.55). Subjects were drawn from Louisiana, Arkansas, Illinois, and Utah.

Parent involvement groups. Twelve two-child families were in the experimental groups and an equal number were in the control groups. Fourteen single child families were in the experimental groups and 8 were in the control groups. Subjects in the parent training studies were preschool children (mean age 52.6 months, SD = 12.8) in Des Moines, Iowa and Salt Lake City, Utah, and the studies were virtually identical except for location. All children attended an existing 1/2 day, 5-day-per-week intervention program in which small groups of 10-12 children were instructed by special education teachers who were assisted by paraprofessional aides. In addition to the center-based program, parents of subjects in the experimental group participated in a program based on the Parents Involved in Education (PIE) training package (Pezzino & Lauritzen, 1986). These PIE training sessions consisted of 15 behaviorally-based ninety-minute sessions, once per week excluding holidays for a period of four months. In addition to the information provided, PIE training sessions offered an opportunity for parents to form support networks and discuss challenges associated with parenting a handicapped

child. Attendance at these parent training sessions ranged from 7 to 87 percent and averaged 46 percent (SD = 24.7), a fairly typical pattern (Lochman & Brown, 1980).

Instruments

Instruments were selected which assessed child and family functioning both prior to and following intervention. The Battelle Developmental Inventory (BDI) (Newborg, Stock, Wnek, Guidubaldi, & Svinicki, 1984), a measure of the child's developmental level, was administered by a trained examiner both at time of pretest and at posttest. (All examiners were qualified with bachelor's or master's degrees and all received extensive training in the administration of the measures and were required to certify with a high degree of accuracy.) Parents (usually the mother) also completed the following family measures at pretest and posttest: the Parenting Stress Index (PSI) (Abidin, 1983) (which measures stress and coping behavior in the parent-child system); Family Support Scale (FSS) (Dunst, Jenkins, & Trivette, 1984) (assesses the availability and helpfulness of different sources of support to families); Family Resource Scale (FRS) (Dunst, 1985b) (measures the extent to which different types of resources are adequate in households with

young children); Family Adaptability and Cohesion Scales (FACES III) (Olson, Portner, & Lavee, 1985) (assesses perceived and ideal levels of family functioning); and a demographic survey dealing with issues such as income, ethnic status, etc. Information pertaining to the reliability and validity of these measures may be found in White, Mott, and Barnett (1987).

In addition, at time of posttest parents also provided an assessment of their child's health, an estimate of the number of minutes per week they spent working with the target child in activities suggested by the staff who worked with their child, and a rating of their satisfaction with the staff who worked with their child. This satisfaction rating involved issues such as parent's ability to communicate with staff, parental perception of their opportunity to participate in the child's education, contentment with the child's goals and activities, and satisfaction with the progress their child made during the intervention period. Also at time of posttest, teachers rated parents in the areas of knowledge, attendance, and support.

Testing sessions lasted about two hours and parents were paid approximately $30 as an incentive to complete the measures.

Results and Discussion

Pre-Intervention Characteristics

Fifty-five two handicapped child families were compared to the matched sample of 55 families with a single handicapped child at time of pretest. The results of pretest comparisons are found in Table 2.

Insert Table 2 about here

Families with two handicapped children differ from families with one handicapped child chiefly in terms of income. Families with two handicapped children have a significantly lower income and a larger percentage of them are on public assistance. There is a trend for fathers of two handicapped children to work fewer hours than fathers of one handicapped child although there is no significant difference in education or occupational level of the fathers. While single- and two-handicapped child families do not report overall differences in family support or resources, two-handicapped child families rate external sources such

as jobs, child care, and public assistance as less helpful. These findings are undoubtedly due to higher paternal unemployment in families with two handicapped children; additional data taken at time of posttest shows that 22% of these fathers report that they are currently seeking employment as opposed to 10% of fathers of one handicapped child. The reasons why fathers of two-handicapped child families have greater difficulty either in gaining or keeping employment should be explored in future research. It is possible that the strains of caring for two handicapped children may create greater demands for the father, resulting in increased absenteeism or lowered productivity. Providing additional external support to these families might allow these fathers greater success in the work place, thus freeing these families from the welfare rolls and allowing them greater self-sufficiency while at the same time benefitting the taxpayer.

Interestingly, there is a trend for two-handicapped child families to perceive themselves as being less discrepant from their ideal of family functioning than do single handicapped child families. This may be due to lowered expectations in these families, or it may be a form of denial. Regardless, the reasons underlying this finding are less important

than their effect for the practitioner: because these families see themselves as closer to their ideal, they are likely to be less receptive to external intervention designed to create change in the family. Practitioners are faced with the paradox of these families, who need greater external support yet may desire it less. Thus, care should be taken to offer help in the areas where these families perceive that they need help without forcing it in other areas.

Post-Intervention Results of Intensity Studies

Group t-tests comparing pretest scores for the experimental and control groups were performed for Battelle Developmental Inventory, Family Resource Scale, Family Support Scale, Family Adaptability and Cohesion Evaluation Scale, and Parent Stress Index scores. At the time of pretest, the intensity study experimental and control groups were significantly different only in terms of the Battelle adaptive behavior subscale score ($t[39] = -1.84$, $p = .07$). A two (single vs. two handicapped child in family, or child status) by two (experimental vs. control group or group status) ANCOVA with income used as covariate was performed for all child and family variables. Additionally, Battelle adaptive behavior scores were added as a covariate for the Battelle adaptive behavior

posttest and pretest external support scores were used as covariate for posttest external support scores on the Family Resource Scale. The results of these comparisons of single and two handicapped child families at time of posttest for the intensity studies are found in Table 3.

Insert Table 3 about here

Greater intensity of intervention produces little differential impact on families who have one handicapped child vs. families who have two handicapped children. Only one significant interaction term appears, suggesting that two-handicapped child families who experienced greater intensity of services were less satisfied with the staff who worked with their child, while one-handicapped child families who experienced higher intensity were more satisfied with staff. This supports the earlier assertion that these families may feel less need for external help and may be more satisfied with lower levels of support.

Overall, experimental and control groups differed only in that parents in the higher intensity groups were more satisfied with the progress their child made during the intervention period (although Battelle

scores show no actual difference between experimental and control groups). Finally, two trends differentiated single- and two-handicapped child families: families with two handicapped children more highly rated their ability to communicate with staff, and family cohesion was more balanced in single handicapped child than two handicapped child families. It is interesting to note that having more than one handicapped child did not seem to affect the amount of time mothers spent working with their target child in staff-suggested activities.

These few significant findings, given the number of tests performed, demonstrate that greater intensity of intervention does not impact families of two handicapped children in a different manner than it does families of one handicapped child. Examination of effect sizes also shows no predictable pattern in the effectiveness of intervention for the two groups. These results suggest that having two handicapped children in the family does not increase the need for more intensive services for the target child. Handicapped children with handicapped siblings progress at the same level as handicapped children with normal siblings without regard to the amount of intervention given.

Post-Intervention Results of Parenting Group Study

The analysis performed for the intensity studies was repeated for the parent involvement group study. Two significant differences appeared between the experimental and control groups at time of pretest: the Family Adaptation and Cohesion Evaluation Scale total score ($t[44] = 2.81$, $p = .004$) and the adaptability subscale of that same measure ($t[44] = 2.89$, $p = .003$). The pretest scores for these measures were used as covariates for the posttest comparisons for these variables. The results of the analysis for parent training studies is found in Table 4.

Insert Table 4 about here

These results show that families with two handicapped children benefit from the parent group to a greater degree than parents of a single handicapped child in several ways: children in two handicapped families have greater personal-social and overall Battelle score gains, families perceive their sources of support to be more helpful, and families become more balanced in adaptability measures. (Extremes in terms of flexibility or rigidness are considered less healthy than a more balanced approach.) Effect sizes for the

two-handicapped child families indicate a more consistent pattern of benefit from the intervention as compared to the single-handicapped child families, especially in the areas of child developmental level, teacher rating of parents, perception of greater support, and more balanced family functioning.

Although they show greater benefit from parent involvement, the advantages of this kind of intervention are not limited to two-handicapped child families. Parents of both single and two handicapped children reported more satisfaction with the progress their children made if they experienced parent training. However, both groups perceived general resources and time availability as having suffered, perhaps because of the demands of parent training aimed at training parents as therapists. A greater balance in family functioning, especially in the area of cohesion, was also found for the parent group for both single and two-handicapped child families.

It should be noted that these results occurred despite the low attendance levels of parents at the parenting group sessions. However, as Table 5 shows, parent involvement group benefits are generally more highly correlated with attendance for two-handicapped child families than for their single-child

counterparts. Nine of the 13 correlations are higher for the two-child group. This suggests that perhaps parents with more than one handicapped child in the family may derive greater benefit from parent involvement because they may apply the principles more generally with their children, although further research is necessary to verify this. Regardless, parenting groups should be offered for families with more than one handicapped child, and these families should be especially encouraged to attend parent training classes.

Insert Table 5 about here

Conclusions

Professionals working with families with more than one handicapped child should carefully design interventions to meet the needs of these families without being excessive. It appears that intervention directed to the parents may be more effective for these families than a more intense level of intervention for the children. Families with two handicapped children are different in some significant ways from families with a single handicapped child, and greater sensitivity to these differences may help professionals to better serve this population.

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Table 1

Group Means for the Matched Variables

Variable	Single Child	Two Child
Child age (months)	37.2 (SD=20.4)	37.4 (SD=20.9)
Child Battelle DQ	67.2 (SD=18.2)	67.6 (SD=23.5)
Mother education	12.5 (SD=1.9)	11.7 (SD=2.8)
Mother age	32.8 (SD=6.7)	31.1 (SD=5.6)
# Children in family	2.9 (SD=1.2)	3.2 (SD=1.9)

Table 2

Comparisons of Single- and Two-Handicapped Child Families at Pretest

Variable	Single Child (N = 55) $\bar{x}$	(SD)	Two-Child (N = 55) $\bar{x}$	(SD)	t	p
Target Child						
% Male	58		62		.39	.70
% Caucasian	89		80		1.32	.19
% in Intact Families	85		85		.04	.97
Hours in daycare per day	1.9	(2.9)	1.7	(3.1)	.35	.73
Birth Order	2.5	(1.4)	2.6	(1.2)	-.70	.49
Mothers						
% in technical/managerial jobs or above	13		20		-1.03	.31
Hours worked per week	11.3	(15.6)	7.2	(13.8)	1.40	.16
Fathers						
% in technical/managerial jobs or above	36		33		.40	.69
Hours worked per week	38.8	(16.7)	31.6	(21.0)	1.81	.07
Education (years)	13.0	(2.2)	12.4	(2.3)	1.43	.16
Family						
# Adults in Home	2.0	(.67)	1.9	(.39)	1.59	.12
Income	$23,641	($14,914)	$15,999	($12,273)	2.86	.01
% on Public Assistance	36		58		-2.23	.03
Parent Stress Index						
Child Related	121.9	(24.3)	120.4	(22.0)	.33	.74
Parent Related	132.9	(26.1)	131.5	(24.5)	.28	.78
TOTAL	254.8	(46.6)	251.87	(41.2)	.34	.74
Family Support Scale	26.2	(10.7)	26.3	(12.2)	-.06	.96
Family Resource Scale						
General Resources	73.8	(10.5)	73.3	(11.7)	.25	.80
Time Availability	37.4	(8.0)	38.6	(10.2)	-.66	.51
Physical Resources	29.8	(4.1)	3.04	(4.0)	-.70	.49
External Support	23.8	(3.6)	22.1	(4.9)	1.88	.06
TOTAL	113.0	(13.8)	113.6	(18.9)	-.18	.86
FACES						
Adaptability	7.5	(6.2)	6.3	(5.0)	1.09	.28
Cohesion	8.4	(6.4)	8.8	(6.9)	-.30	.76
Discrepancy	12.8	(9.2)	9.5	(8.6)	1.81	.07
TOTAL	15.9	(9.1)	15.1	(9.5)	.73	.66

Table 3

Comparisons of Single- and Two-Handicapped Child Families at Time of Posttest for Intensity Studies (ANCOVA-Adjusted Means)

	Single-Child				Two-Child				Significance						Effect Size	
	Control (N = 9)		Experimental (N = 9)		Control (N = 16)		Experimental (N = 7)		Child		Group		Child x grp			
Variable	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	F	p	F	p	F	p	Single-Child	Two-Child
Battelle Developmental Inventory																
Personal-Social	67.5	(32.6)	74.3	(17.5)	66.5	(35.3)	78.7	(15.6)	.03	.87	1.07	.31	.08	.78	.21	.35
Adaptive Behavior	79.5	(31.5)	77.9	(19.5)	76.7	(32.8)	68.5	(20.6)	.63	.43	.39	.54	.19	.66	-.05	-.25
Motor	81.7	(40.9)	72.5	(28.9)	78.3	(31.3)	77.0	(26.3)	.00	.95	.40	.53	.53	.47	-.22	.02
Communication	69.9	(30.9)	78.8	(13.6)	63.5	(29.8)	78.7	(31.1)	.04	.85	2.16	.15	.22	.64	.29	.51
Cognitive	75.2	(34.3)	85.6	(20.5)	70.8	(32.7)	86.6	(18.9)	.03	.86	1.87	.18	.08	.78	.30	.48
Total	71.7	(32.3)	78.7	(18.3)	70.6	(31.3)	79.8	(19.5)	0.0	.99	.82	.37	.01	.90	.22	.29
Child Health	1.6	(.55)	1.7	(.71)	2.0	(.54)	2.0	(.71)	2.71	.11	.13	.72	.19	.67	.18	0
Teacher Rating of Parent																
Attendance	2.8	(.45)	2.4	(.52)	2.1	(.94)	2.5	(.55)	1.31	.26	.00	.96	2.82	.11	-.89	.43
Knowledge	2.2	(.84)	1.9	(.46)	2.1	(.98)	2.3	(.82)	.16	.69	.01	.94	1.10	.30	-.36	.20
Support	2.2	(.84)	2.2	(.74)	1.9	(.86)	2.3	(.98)	.07	.79	.35	.56	.35	.56	0	.47
Minutes per week Parents Work with Child at Home	246.29	(410.76)	160.0	(157.39)	241.6	(418.1)	171.1	(236.75)	.00	.98	.26	.61	.00	.96	-.21	-.17
Parent Satisfaction																
Staff	3.41	(.89)	3.74	(.44)	4.0	(0.0)	3.51	(.55)	1.01	.32	.25	.63	5.25	.03	.37	0
Ability to Communicate with Staff	3.03	(1.2)	3.33	(.73)	3.87	(.41)	3.52	(.84)	3.29	.08	.01	.92	1.40	.25	.25	-.85
Child's Goals and Activities	3.22	(.84)	3.50	(.53)	3.76	(.47)	3.68	(.52)	2.74	.11	.22	.64	.73	.40	.33	-.17
Opportunity to Participate	3.86	(.45)	3.03	(1.09)	3.56	(.82)	3.53	(.84)	.11	.74	2.03	.17	1.84	.19	-1.84	-.04
Progress Child Made	3.19	(1.1)	3.87	(.44)	2.69	(1.20)	3.67	(.52)	.96	.34	5.27	.03	.19	.66	.62	.82
Parent Stress Index-Total	243.19	(45.35)	247.53	(55.91)	239.30	(56.62)	248.93	(65.00)	.01	.94	.16	.69	.02	.88	-.10	-.26
Child-Related	116.23	(22.43)	112.36	(26.17)	117.73	(23.97)	119.50	(28.83)	.23	.64	.01	.91	.10	.76	.17	-.07
Parent-Related	126.92	(24.11)	135.25	(30.03)	121.53	(20.16)	128.25	(37.91)	.43	.52	.82	.44	.01	.93	-.35	-.33

(Table continues)

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Table 3 (continued)

Comparisons of Single- and Two-Handicapped Child Families at Time of Posttest for Intensity Studies (ANCOVA-Adjusted Means)

	Single-Child				Two-Child				Significance						Effect Size	
	Control (N = 9)		Experimental (N = 9)		Control (N = 16)		Experimental (N = 7)		Child		Group		Child x grp			
Variable	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	F	p	F	p	F	p	Single-Child	Two-Child
Family Support Scale	28.52	(9.98)	25.33	(8.60)	33.88	(20.03)	29.44	(12.22)	.86	.36	.55	.47	.02	.91	-.32	-.22
Family Resource Scale–Total	122.19	(13.68)	111.44	(16.92)	122.32	(21.27)	118.85	(14.73)	.51	.48	1.75	.20	.47	.50	-.79	-.16
General Resources	79.80	(12.19)	73.57	(11.45)	79.08	(12.87)	77.33	(9.93)	.21	.65	1.38	.25	.45	.51	-.51	-.14
Time Availability	40.22	(3.91)	34.38	(9.11)	41.93	(10.04)	39.18	(9.59)	1.14	.29	1.93	.18	.26	.62	-1.49	-.27
Physical Resources	31.89	(3.60)	30.35	(4.36)	33.12	(3.52)	32.29	(1.94)	2.14	.15	1.15	.29	.11	.74	-.43	-.24
External Support	22.50	(4.55)	21.19	(3.74)	22.38	(7.03)	23.83	(3.72)	1.03	.32	.00	.96	1.24	.28	-.29	-.21
FACES																
Adaptability	7.53	(5.86)	6.90	(3.79)	7.23	(9.11)	5.37	(4.04)	.15	.70	.27	.60	.07	.80	.11	.20
Cohesion	5.08	(3.45)	4.22	(5.07)	10.11	(6.43)	7.43	(7.94)	3.98	.06	.71	.41	.19	.67	.25	.42
Discrepancy	6.96	(7.46)	9.38	(3.39)	8.93	(9.77)	6.82	(4.28)	.01	.93	.00	.96	.51	.48	-.32	.22
Total	12.61	(7.14)	11.12	(6.15)	17.34	(8.64)	12.80	(11.70)	1.13	.30	.96	.33	.25	.62	.21	.53

Table 4

Comparisons of Single- and Two-Handicapped Child Families at Time of Posttest for Parent Training Studies (ANCOVA-Adjusted Means)

	Single-Child				Two-Child				Significance						Effect Size	
	Control (N = 14)		Experimental (N = 8)		Control (N = 12)		Experimental (N = 12)		Child		Group		Child x grp			
Variable	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	F	p	F	p	F	p	Single-Child	Two-Child
Battelle Developmental Inventory																
Personal-Social	70.67	(19.35)	62.09	(16.91)	51.88	(14.67)	67.87	(17.90)	1.37	.25	.45	.51	5.12	.03	-.44	1.09
Adaptive Behavior	66.82	(17.82)	66.41	(16.23)	59.10	(11.83)	71.04	(17.19)	.25	.62	1.78	.19	1.09	.30	.09	1.01
Motor	70.84	(22.31)	66.43	(14.91)	67.30	(8.82)	71.24	(27.79)	.04	.85	.01	.94	1.68	.20	-.20	.45
Communication	61.33	(18.95)	54.12	(17.34)	51.80	(7.34)	56.61	(15.34)	.56	.46	.07	.80	1.71	.20	-.38	.66
Cognitive	66.68	(17.18)	61.62	(16.59)	59.96	(7.83)	66.08	(15.64)	.06	.81	.01	.91	1.57	.22	-.29	.80
Total	66.41	(15.72)	61.20	(12.22)	56.62	(5.74)	65.33	(13.55)	.54	.47	.21	.65	3.41	.07	-.33	1.52
Child Health	1.94	(.49)	1.91	(.64)	1.95	(.47)	2.41	(.52)	2.26	.14	1.61	.21	2.14	.15	-.06	.98
Teacher Rating of Parent																
Attendance	2.38	(.70	2.06	(.90)	2.06	(.84)	2.47	(.53)	.06	.82	.04	.84	2.68	.11	-.46	.49
Knowledge	1.78	(.72)	1.58	(.76)	1.54	(.71)	2.00	(.93)	.20	.66	.36	.55	2.46	.13	-.28	.65
Support	1.86	(.79)	2.01	(.90)	1.79	(.76)	2.23	(.50)	.14	.71	2.14	.15	.54	.47	.19	.58
Minutes per week Parents Work with Child at Home	134.51	(170.03)	47.27	(49.48)	195.89	(149.91)	266.03	(374.16)	2.15	.16	.01	.93	.67	.42	-.51	.47
Parent Satisfaction																
Staff	3.46	(.66	3.66	(.52)	3.53	(.54)	3.43	(.53)	.15	.71	.07	.80	.52	.48	.30	-.19
Ability to Communicate with Staff	3.46	(.78)	3.33	(.52)	3.28	(.71)	3.54	(.73)	.01	.94	.06	.80	.59	.45	-.17	.37
Child's Goals and Activities	3.62	(.51)	3.67	(.52)	3.36	(.52)	3.45	(.53)	1.72	.20	.16	.69	.01	.91	.10	.17
Opportunity to Participate	3.62	(.65)	3.18	(.98)	3.21	(.71)	3.57	(.53)	.00	.98	.03	.87	2.81	.12	-.88	.51
Progress Child Made	3.45	(.52)	3.66	(.52)	3.16	(.35)	3.65	(.50)	.78	.39	3.99	.06	.68	.42	.40	1.40
Parent Stress Index-Total	260.95	(55.61)	262.49	(30.46)	258.51	(36.35)	261.40	(44.39)	.02	.90	.02	.88	.00	.96	-.03	-.08
Child-Related	121.45	(26.31)	118.83	(12.76)	119.17	(20.84)	121.88	(17.00)	.00	.97	.00	.99	.16	.69	.10	-.12
Parent-Related	139.50	(33.31)	143.65	(24.69)	139.34	(20.82)	139.73	(28.80)	.05	.82	.07	.80	.05	.83	-.12	-.02

(Table continues)

Table 4 (continued)

Comparisons of Single- and Two-Handicapped Child Families at Time of Posttest for Parent Training Studies (ANCOVA-Adjusted Means)

Variable	Single-Child				Two-Child				Significance						Effect Size	
	Control (N = 14)		Experimental (N = 8)		Control (N = 12)		Experimental (N = 12)		Child		Group		Child x grp		Single-Child	Two-Child
	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	$\bar{x}$	(SD)	F	p	F	p	F	p		
Family Support Scale	26.39	(8.74)	26.07	(6.39)	17.15	(8.80)	28.14	(9.10)	1.68	.20	3.71	.06	4.34	.04	-.04	1.25
Family Resource Scale–Total	120.78	(18.45)	107.20	(11.15)	116.60	(22.76)	107.33	(16.28)	.13	.73	4.00	.05	.15	.70	-.74	-.41
General Resources	78.56	(11.53)	68.63	(8.16)	75.08	(13.16)	68.19	(11.69)	.32	.58	5.83	.02	.20	.66	-.86	-.52
Time Availability	41.26	(8.55)	35.14	(6.18)	40.35	(13.16)	34.70	(6.92)	.05	.82	3.94	.05	.01	.94	-.72	-.43
Physical Resources	30.67	(4.94)	33.27	(15.68)	30.29	(4.45)	27.72	(5.21)	1.46	.23	.00	.99	1.16	.29	.53	-.56
External Support	22.77	(4.55)	22.63	(3.42)	24.23	(5.79)	22.59	(5.6)	.30	.59	.48	.49	.35	.56	-.03	-.28
FACES																
Adaptability	6.31	(5.48)	7.05	(4.10)	14.26	(6.83)	7.79	(6.52)	6.49	.02	2.68	.11	5.03	.03	-.14	.98
Cohesion	8.84	(8.93)	4.64	(5.00)	10.18	(9.64)	5.91	(6.00)	.39	.54	4.11	.05	.00	.99	.77	.44
Discrepancy	12.47	(11.71)	13.82	(6.88)	13.91	(10.16)	8.42	(9.34)	.48	.49	.55	.46	1.58	.22	-.12	.54
Total	15.51	(10.13)	12.16	(4.53)	23.79	(11.40)	12.10	(8.78)	2.75	.11	4.89	.03	1.49	.23	.33	1.03

Table 5

Correlations Between Attendance at Parent Groups and Child and Family Variables

Variable	Single Child (N = 22)	Two Child (N = 24)
Battelle Developmental Inventory		
Personal Social	-.01	.28
Adaptive Behavior	.16	.36
Motor	-.15	.01
Communication	-.07	.08
Cognitive	-.04	-.01
Total	-.05	.21
Parent Stress		
Child Related	-.12	-.13
Parent Related	.06	-.15
Total	-.01	-.16
FACES		
Adapt	-.27	-.40
Cohesion	-.28	-.18
Discrepancy	.08	-.19
Total	-.35	-.38